



MAJOR SOURCE OPERATING PERMIT

Permittee: Calhoun Power Company I, LLC

Facility Name: Calhoun Energy Center

Facility No.: 301-0073

Location: Eastaboga, Calhoun County, Alabama

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, <u>Ala. Code</u> 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, <u>Ala. Code</u> 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

Pursuant to the Clean Air Act of 1990, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the Clean Air Act of 1990 are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.

Issuance Date: DRAFT

Effective Date: DRAFT

Expiration Date: DRAFT

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1.	Tran	sfer	
	or ot piece	permit is not transferable, whether by operation of law therwise, either from one location to another, from one of equipment to another, or from one person to her, except as provided in Rule 335-3-1613(1)(a)5.	Rule 335-3-1602(6)
2.	Rene	<u>ewals</u>	
	six (pplication for permit renewal shall be submitted at least 6) months, but not more than eighteen (18) months, re the date of expiration of this permit.	Rule 335-3-1612(2)
	to op and	source for which this permit is issued shall lose its right berate upon the expiration of this permit unless a timely complete renewal application has been submitted in the time constraints listed in the previous paragraph.	
3.	Seve	erability Clause	
	and claus inval juris inval confi subp that	provisions of this permit are declared to be severable if any section, paragraph, subparagraph, subdivision, se, or phrase of this permit shall be adjudged to be lid or unconstitutional by any court of competent diction, the judgment shall not affect, impair, or lidate the remainder of this permit, but shall be need in its operation to the section, paragraph, paragraph, subdivision, clause, or phrase of this permit shall be directly involved in the controversy in which is judgment shall have been rendered.	Rule 335-3-1605(e)
4.	Com	pliance	
	(a)	The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.	Rule 335-3-1605(f)
	(b)	The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.	Rule 335-3-1605(g)

Fed	erally Enforceable Provisos	Regulations	
5.	Termination for Cause		
	This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.	Rule 335-3-1605(h)	
6.	Property Rights		
	The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	Rule 335-3-1605(i)	
7 .	Submission of Information		
	The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.	Rule 335-3-1605(j)	
8.	Economic Incentives, Marketable Permits, and Emissions Trading		
	No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.	Rule 335-3-1605(k)	
9.	Certification of Truth, Accuracy, and Completeness:		
	Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.	Rule 335-3-1607(a)	
10.	Inspection and Entry		
	Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Alabama Department of Environmental Management and EPA to conduct the	Rule 335-3-1607(b)	

Fede	rally I	Enforceable Provisos	Regulations
	follo	wing:	
	(a)	Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit;	
	(b)	Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit;	
	(c)	Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;	
	(d)	Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.	
11.	Com	pliance Provisions	
	(a)	The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.	Rule 335-3-1607(c)
	(b)	The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.	
12.	Com	pliance Certification	
A coi	Febracco accor requ shall	ce certification shall be submitted yearly no later than uary 28^{th} unless more frequent periods are specified rding to the specific rule governing the source or ired by the Department. The compliance certification cover the reporting period of January 1^{st} through mber 31^{st} of each year.	Rule 335-3-1607(e)
	(a)	The compliance certification shall include the following:	
		(1) The identification of each term or condition of this permit that is the basis of the certification;	
		(2) The compliance status;	
		(3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule	

Fede	rally I	Enforceable Provisos	Regulations
		335-3-1605(c) (Monitoring and Recordkeeping Requirements);	
		(4) Whether compliance has been continuous or intermittent;	
		(5) Such other facts as the Department may require to determine the compliance status of the source;	
	(b)	The compliance certification shall be submitted to:	
	Alat	pama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463	
		and to:	
		Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303	
13.	Reo	pening for Cause	
		er any of the following circumstances, this permit will be ened prior to the expiration of the permit:	Rule 335-3-1613(5)
	(a)	Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire.	
	(b)	Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.	
	(c)	The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions	

Fede	erally I	Enforce	eable Provisos	Regulations
		stand	lards or other terms or conditions of this permit.	
	(d)	this	Administrator or the Department determines that permit must be revised or revoked to assure cliance with the applicable requirements.	
14.	<u>Addi</u>	tional	Rules and Regulations	
	exist Rule	ing on s and	is issued on the basis of Rules and Regulations the date of issuance. In the event additional Regulations are adopted, it shall be the permit ponsibility to comply with such rules.	§22-28-16(d), Code of Alabama 1975, as amended
15.	<u>Equi</u>	pment	Maintenance or Breakdown	
	(a)	equipus issue main equipus twent shute the sinten	ne case of shutdown of air pollution control oment (which operates pursuant to any permit d by the Director) for necessary scheduled tenance, the intent to shut down such oment shall be reported to the Director at least ty-four (24) hours prior to the planned down, unless such shutdown is accompanied by hutdown of the source which such equipment is ded to control. Such prior notice shall include, is not limited to the following:	Rule 335-3-107(1), (2)
		(1)	Identification of the specific facility to be taken out of service as well as its location and permit number;	
		(2)	The expected length of time that the air pollution control equipment will be out of service;	
		(3)	The nature and quantity of emissions of air contaminants likely to occur during the shutdown period;	
		(4)	Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period;	
		(5)	The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.	
	(b)	or up	e event that there is a breakdown of equipment eset of process in such a manner as to cause, or expected to cause, increased emissions of air	

Fede	rally I	Enforce	able Provisos	Regulations
		stand shall worki pertin	minants which are above an applicable lard, the person responsible for such equipment notify the Director within 24 hours or the nexting day and provide a statement giving all nent facts, including the estimated duration of breakdown. The Director shall be notified when reakdown has been corrected.	
16.	Ope	ration o	of Capture and Control Devices	
	whice oper emist the as to	th this ated at sions of above ed	ution control devices and capture systems for permit is issued shall be maintained and all times in a manner so as to minimize the f air contaminants. Procedures for ensuring that quipment is properly operated and maintained so nize the emission of air contaminants shall be	§22-28-16(d), Code of Alabama 1975, as amended
17.	<u>Obn</u>	oxious	<u>Odors</u>	
	obnoverification odor	oxious ied by ous em Alabam these	t is issued with the condition that, should odors arising from the plant operations be Air Division inspectors, measures to abate the issions shall be taken upon a determination by a Department of Environmental Management measures are technically and economically	Rule 335-3-108
18.	Fugitive Dust			
	(a)	eman	autions shall be taken to prevent fugitive dust lating from plant roads, grounds, stockpiles, ns, dryers, hoppers, ductwork, etc.	Rule 335-3-402
	(b)	in the airbo follow	or haul roads and grounds will be maintained e following manner so that dust will not become rne. A minimum of one, or a combination, of the ving methods shall be utilized to minimize rne dust from plant or haul roads and grounds:	
		(1)	By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;	
		(2)	By reducing the speed of vehicular traffic to a point below that at which dust emissions are	

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			created;	
		(3)	By paving;	
		(4)	By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;	
	adequand and a exclusion contraction. Alternations	uately ground sively ol tech native	e, or a combination, of the above methods fail to reduce airborne dust from plant or haul roads its, alternative methods shall be employed, either or in combination with one or all of the above uniques, so that dust will not become airborne. methods shall be approved by the Department ization.	
9.	<u>Addi</u>	tions a	and Revisions	
	•		cations to this source shall comply with the n procedures in Rules 335-3-1613 or 335-3-16-	Rule 335-3-1613 and .14
0.	Recordkeeping Requirements			
	(a)		rds of required monitoring information of the ce shall include the following:	Rule 335-3-1605(c)2
		(1)	The date, place, and time of all sampling or measurements;	
		(2)	The date analyses were performed;	
		(3)	The company or entity that performed the analyses;	
		(4)	The analytical techniques or methods used;	
		(5)	The results of all analyses; and	
		(6)	The operating conditions that existed at the time of sampling or measurement.	
	(b)	and at lessamp samp Supp main	ntion of records of all required monitoring data support information of the source for a period of east 5 years from the date of the monitoring ole, measurement, report, or application. Foort information includes all calibration and attenuace records and all original strip-chart redings for continuous monitoring instrumentation	

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		and copies of all reports required by the permit	
21.	Repo	orting Requirements	
	(a)	Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-1604(9).	Rule 335-3-1605(c)3
	(b)	Deviations from permit requirements shall be reported within 48 hours or 2 working day of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.	
22.	<u>Emi</u>	ssion Testing Requirements	
	provisafet acco 40 o	point of emission which requires testing will be ided with sampling ports, ladders, platforms, and other by equipment to facilitate testing performed in rdance with procedures established by Part 60 of Title f the Code of Federal Regulations, as the same may be inded or revised.	Rule 335-3-105(3) and Rule 335-3-1- .04(1)
	in a subr	Air Division must be notified in writing at least 10 days dvance of all emission tests to be conducted and mitted as proof of compliance with the Department's air ation control rules and regulations.	
	proc	avoid problems concerning testing methods and edures, the following shall be included with the ication letter:	
	(1)	The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.	Rule 335-3-104
	(2)	A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning).	

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	(3)	A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity.	
	(4)	A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.	
	owne and	etest meeting may be held at the request of the source er or the Air Division. The necessity for such a meeting the required attendees will be determined on a case-by- basis.	Rule 335-3-104
	30 c	est reports must be submitted to the Air Division within days of the actual completion of the test unless an asion of time is specifically approved by the Air Division.	
23.	Payr	nent of Emission Fees	
		ual emission fees shall be remitted each year according e fee schedule in ADEM Admin. Code R. 335-1-704.	Rule 335-1-704
24.	Othe	er Reporting and Testing Requirements	
	fuel may pollu	mission of other reports regarding monitoring records, analyses, operating rates, and equipment malfunctions be required as authorized in the Department's air ation control rules and regulations. The Department require emission testing at any time.	Rule 335-3-104(1)
25.	<u>Title</u>	e VI Requirements (Refrigerants)	
	inclu Class 82, 3 and pract recyc	facility having appliances or refrigeration equipment, ading air conditioning equipment, which use Class I or I ozone-depleting substances as listed in 40 CFR Part Subpart A, Appendices A and B, shall service, repair, maintain such equipment according to the work tices, personnel certification requirements, and certified cling and recovery equipment specified in 40 CFR Part Subpart F.	335-3-1605(a)
	Class the r	person shall knowingly vent or otherwise release any s I or Class II substance into the environment during repair, servicing, maintenance, or disposal of any device pt as provided in 40 CFR Part 82, Subpart F.	
		responsible official shall comply with all reporting and rdkeeping requirements of 40 CFR 82.166. Reports	

Fede	rally I	Enforc	eable Provisos	Regulations
		l be su ired.	abmitted to the US EPA and the Department as	
26.	Che	mical .	Accidental Prevention Provisions	
	If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then:		a process in quantities greater than the threshold	40 CFR Part 68
	(a)		owner or operator shall comply with the isions in 40 CFR Part 68.	
	(b)		owner or operator shall submit one of the wing:	
		(1)	A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or,	
		(2)	A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan.	
27.	Display of Permit			
	at th locat	ne site t ted and	t shall be kept under file or on display at all times where the facility for which the permit is issued is d will be made readily available for inspection by persons who may request to see it.	Rule 335-3-1401(1)(d)
28.	Circ	umver	<u>ıtion</u>	
	any redu conc	device action in ceals or	shall cause or permit the installation or use of e or any means which, without resulting in in the total amount of air contaminant emitted, r dilutes any emission of air contaminant which rwise violate the Division 3 rules and regulations.	Rule 335-3-110
29.	Visil	Visible Emissions		
	Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise		t, any source of particulate emissions shall not more than one 6-minute average opacity greater in any 60-minute period. At no time shall any charge a 6-minute average opacity of particulate greater than 40%. Opacity will be determined by	. ,

Fede	rally Enforceable Provisos	Regulations
	specified in the Unit Specific provisos of this permit.	
30.	Fuel-Burning Equipment	
	(a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Rule 335-3-403.	Rule 335-3-403
	(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Rule 335-3-501.	Rule 335-3-501
31.	Process Industries - General	
	Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Rule 335-3-404.	Rule 335-3-404
32.	Averaging Time for Emission Limits	
	Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.	Rule 335-3-105
33.	Emissions Inventory Reporting Requirements	
	In order to meet the statewide emissions inventory reporting requirements under 40 CFR 51, Appendix A, the permittee shall comply with the reporting requirements under ADEM Admin. Code r. 335-3-115.	Rule 335-3-115
34.	Permit Shield	
	A permit shield exists under this operating permit in accordance with ADEM Admin. Code 335-3-1610 in that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance. The permit shield is based on the accuracy of the information supplied in the application for this permit. Under this shield, it has been determined that requirements listed as non-applicable in the application are not applicable to this source.	Rule 335-3-1610

Summary Page for Four (4) 170 MW Natural Gas/Distillate Fuel Oil Fired combustion Turbines

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
CT1, CT2 Four (4) - 170 CT3, CT4 MW Natural Gas/Distillate Fuel Oil Fired Combustion Turbines		PM	Natural Gas - 0.009 lb/MMBtu & 9.0 lb/hr Distillate Oil - 0.015 lb/MMBtu & 17.0 lb/hr	ADEM Admin. Code r. 335-3-1404(9)(b) BACT
		NOx	75 ppmv (adjusted for heat rate and fuel bound nitrogen) (4 hour avg) Natural Gas – 50%-100% load: 0.033 lb/MMBtu & 64.1 lb/hr (annual avg) 50%-100% load: 0.044 lb/MMBtu & 85.5 lb/hr (3-hour avg) Peak load: 0.055 lb/MMBtu & 110.6 lb/hr Distillate Oil – 50%-100% load: 0.163 lb/MMBtu	40 CFR 60, Subpart GG ADEM Admin. Code r. 335-3-1404(9)(b) BACT
		SO ₂	& 342.5 lb/hr 150 ppmv or fuel S content ≤ 0.8% Natural Gas - 0.006 lb/MMBtu & 10.7 lb/hr Distillate Oil - 0.06 lb/MMBtu & 105.9 lb/hr Fuel sulfur content ≤ 0.05%	40 CFR 60, Subpart GG ADEM Admin. Code r. 335-3-1404(9)(b) BACT
		СО	Natural Gas – 50%-100% load: 0.017 lb/MMBtu & 31.8 lb/hr Peak load: 0.026 lb/MMBtu & 53.5 lb/hr Distillate Oil – 50%-100% load: 0.064 lb/MMBtu & 78.6 lb/hr	ADEM Admin. Code r. 335-3-1404(9)(b) BACT
		Sulfuric Acid Mist	Natural Gas - 0.0004 lb/MMBtu & 0.82 lb/hr Distillate Oil - 0.0039 lb/MMBtu & 8.1 lb/hr	ADEM Admin. Code r. 335-3-1404(9)(b) BACT
		Opacity	10%	ADEM Admin. Code r. 335-3-1404(9)(b) BACT

Provisos for Four (4) 170 MW Natural Gas/Distillate Fuel Oil Fired combustion Turbines

Fed	lerally Enforceable Provisos	Regulations
App	licability	
1.	These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2.	These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-1404, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."	Rule 335-3-1404
3.	The four (4) combustion turbine units are subject to the provisions of ADEM Admin. Code r. 335-3-1002(33), 40 CFR	Rule 335-3-1002(33)
	60 Subpart GG "Standards of Performance for Stationary Gas Turbines."	40 CFR 60 Subpart GG
4.	These units are subject to the Acid Rain Rules contained in Rule 335-3-18 and 40 CFR Part 72, 75, and 76. The applicable Acid Rain Permit is contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 and 40 CFR Parts 72, 75, and 76
5.	Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated as enforceable conditions of this permit.	Rule 335-3-1605(a)2
6.	These sources are subject to the applicable provisions of the Cross-State Air Pollution Rule found in ADEM Admin. Code r. 335-3-506 through 335-3-536 and ADEM Admin. Code r. 335-3-807 through 335-3-870.	Rules 335-3-506 through 335-3-536 and Rules 335-3-807 through 335-3-870
<u>Em</u>	ission Standards	
1.	The nitrogen oxide emissions from each combustion turbine	Rule 335-3-1002(33)
	stack shall not exceed 75 ppmv (corrected to 15% oxygen on a dry basis), based upon 4-hour rolling averages, with an upward adjustment for heat rate and fuel bound nitrogen.	40 CFR §60.332
2.	Sulfur dioxide emissions from each combustion turbine stack	Rule 335-3-1002(33)
	shall not exceed 150 ppmv or the sulfur content of all fuels burned in the combustion turbines shall not exceed 0.8% by weight.	40 CFR §60.333
3.	The nitrogen oxide emission rate from each combustion turbine stack, when firing natural gas from 50%-100% load, shall not exceed 0.033 lb/MMBtu and 64.1 lb/hr on an annual average and 0.044 lb/MMBtu and 85.5 lb/hr on a rolling 3-hour average.	Rule 335-3-1404(9) BACT

Fed	lerally Enforceable	Regulations	
4.	turbine stack, whil	emission rate from each combustion e firing fuel oil, shall not exceed 0.163 2.5 lb/hr on a rolling 3-hour average.	Rule 335-3-1404(9) BACT
5.	The nitrogen oxide turbine stack, whil conditions, shall no on a rolling 3-hour	Rule 335-3-1404(9) BACT	
6.	turbine stack shall lb/hr when firing r	de emission rate from each combustion not exceed 0.017 lb/MMBtu and 31.8 actural gas from 50%-100% load and 0.064 6 lb/hr when firing fuel oil.	Rule 335-3-1404(9) BACT
7.	turbine stack shall	de emission rate from each combustion not exceed 0.026 lb/MMBtu and 53.5 atural gas during peak load conditions.	Rule 335-3-1404(9) BACT
8.	The particulate maturbine stack shall when firing natura when firing fuel oil	Rule 335-3-1404(9) BACT	
9.	The sulfur dioxide emission rate from each combustion turbine stack shall not exceed 0.006 lb/MMBtu and 10.7 lb/hr when firing natural gas and 0.06 lb/MMBtu and 105.9 lb/hr when firing fuel oil.		Rule 335-3-1404(9) BACT
10.	The sulfuric acid mist emission rate from each combustion turbine stack shall not exceed 0.0004 lb/MMBtu and 0.82 lb/hr when firing natural gas and 0.0039 lb/MMBtu and 8.1 lb/hr when firing fuel oil.		Rule 335-3-1404(9) BACT
11.	Visible emissions from each combustion turbine stack shall not exceed 10% opacity.		Rule 335-3-1404(9) BACT
12.	The emission standards in Items 3 through 11 apply except during startup, shutdown, and load change as defined below, and during fuel transfer from natural gas to fuel oil or from fuel oil to natural gas.		Rule 335-3-1403(1)(h)1
	Startup: The period from when the combustion turbine is started until it reaches 50% load. This period shall be readily identifiable on the load chart recording.		

Federally Enforceable	Provisos	Regulations	
Shutdown:	Shutdown: The period when the combustion turbines are shutting down from 50% load to 0% load. This period shall be readily identifiable on the load chart recording.		
Load Change:	A rapid change in the electrical loading of a unit that is readily identifiable on the load chart recording.		
	urbine shall fire only natural gas or The sulfur content of the distillate fuel oil 05% by weight.	Rule 335-3-1404(9) BACT	
	rbines shall not be operated at a load less ed as 50%, except during startup or	Rule 335-3-1404(9) BACT	
	stion turbines shall not operate more than consecutive 12-month period.	Rule 335-3-1404(9) BACT	
	stion turbines shall not burn distillate fuel ours in any consecutive 12-month period.	Rule 335-3-1404(9) BACT	
	stion turbines shall not operate in peak 00 hours in any consecutive 12-month	Rule 335-3-1404(9) BACT	
	ng any allowances that the source lawfully V of the Act or the regulations promulgated hibited.	Rule 335-3-1605(d)	
Compliance and Perform	nance Test Methods and Procedures		
Proviso 1 of the Endetermine compliants. Method 20 be used to determine oxygen concentrations.	hissions monitor system (CEMS) required by hissions Monitoring section shall be used to have the applicable nitrogen oxide emission of Appendix A in 40 CFR Part 60 may also he compliance with the nitrogen oxides and ons. Alternate methods may be utilized if the by the Department.	Rule 335-3-105(1)	

Fed	lerally Enforceable Provisos	Regulations
2.	The owner or operator shall determine compliance with the fuel sulfur content requirements as follows: ASTM D 1072-80 or 90 (Reapproved 1994), D 2880-71, D 3031-81, D 4084-82 or 94, or D 3246-81, 92, or 96 shall be used for the sulfur content of gaseous fuels. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-105(1)
3.	Method 9 of Appendix A in 40 CFR Part 60 shall be used to determine the opacity from the turbines.	Rule 335-3-105(1)
4.	Method 10 of Appendix A in 40 CFR Part 60 shall be used to determine the carbon monoxide emissions from the turbines. Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-105(1)
5.	Method 5 or 17 of Appendix A in 40 CFR Part 60 shall be used to determine the particulate matter emissions from the turbines. Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-105(1)
6.	Method 25, 25A, or 25B of Appendix A in 40 CFR Part 60 shall be used to determine the volatile organic compounds emissions from the turbines. Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-105(1)
7.	Method 6, 6A, or 6B of Appendix A in 40 CFR Part 60 shall be used to determine the sulfur dioxide emissions from the turbines. Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-105(1)
8.	Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.	Rule 335-3-105(1)
<u>Em</u>	ission Monitoring	
1.	The continuous emissions monitoring systems (CEMS) to measure nitrogen oxide emissions shall continue to be operated at a location approved by the Director. The CEMS shall meet the specifications and procedures of 40 CFR Part 75 and shall be certified and maintained in accordance with 40 CFR Part 75. The NOx CEMS shall be utilized as a continuous compliance determination method for each of the	Rule 335-3-1404 BACT 40 CFR 75

Fed	lerall	y Enforceable Provisos	Regulations
	app time	licable NOx limits based upon the associated averaging es.	
2.		sampling and analysis shall be performed in accordance a 40 CFR Part 75, App. D.	40 CFR 75
Rec	ordke	eeping and Reporting Requirements	
1.	bur §60	excess emissions report for the combined turbine/duct ner stack as defined by 40 CFR Part 60, Subpart A, .7(c) and (d), will be submitted to the ADEM within 30 s of the end of each calendar quarter in the following nat:	Rule 335-3-1605(c) 40 CFR 64.9
	NO	x:	
	(A)	Source Operating Time (all times and periods in hours)	
	(B)	Time Monitoring System was Able to Record Source Performance*	
	(C)	Monitor Availability (%) = $B/A \times 100$	
	(D)	Total Emissions Periods where the Monitoring System determines emissions are above standards**	
	(E)	Overall Source Performance (%) = $[(B - D) / B] \times 100$	
	(F)	Exempt Periods (as applicable)- F (x)	
		(1) F 1 = Startup/Shutdown	
		(2) F 2 = Load Change	
	(G)	Net Excess Emissions = D - $\sum F(x)$	
	(H)	Net Source Performance (%):	
		= $[1 - (G/(B-\Sigma F(x)))] \times 100$	
		= [$(B - \sum F(x) - G(x)) / (B - \sum F(x))$] x 100	
	(I)	Overall Exceedances (%) - Percent of time above the standard due to all reasons:	
		= 100-E	
	(J)	Net Exceedances (%) - Percent of time above the standard due to non-exempt reasons:	
		= 100-H	

Regulations

(K) Exempt Period Exceedances (%) - Percent of time above the standard due to an exempted reason

$$SU/SD = (F1 / B) \times 100$$

Load Change = $(F2 / B) \times 100$

- * Information identifying each period during which the monitoring systems were inoperative (except for zero and span checks) and the nature of the system repairs or adjustments will be maintained and made available upon request.
- ** Report date, time, duration, magnitude, cause and corrective action taken for each occurrence.

NOTE: Data recorded during periods of system breakdowns, repairs, adjustments, and calibration checks shall not be included in any of the above data averages.

NOTE: Equations used to convert Monitoring System data as monitored to the required reporting standard will be provided with the first quarter report of each calendar year.

NOTE: 40 CFR Part 60, Subpart A, §60.7(d) provides additional requirements concerning identification of the monitoring system, changes to the monitoring system, process or controls and certification of the report.

- 2. Records of the following shall be maintained in a file suitable for inspection for a period of at least five years following said recording:
- Rule 335-3-16-.05(c)
- a. The percent by weight of the sulfur in the fuel oil burned in the combustion turbines.
- b. Monthly and rolling 12-month total operating hours for each turbine.
- c. Monthly and rolling 12-month total operating hours for each turbine while firing distillate oil.
- d. Monthly and rolling 12-month total operating hours for each turbine during peak mode conditions.
- e. The loads at which the turbines operated.
- 3. These units shall comply with Admin. Code R. 335-3-8-.12, "Monitoring and Reporting".

Rule 335-3-8-.12

Acid Rain Requirements

1. These units are subject to the Acid Rain rules contained in 40 | Rule 335-3-18 & 40

Fed	erally Enforceable Provisos	Regulations	
	CFR Parts 72 and 75. Applicable Acid Rain permits are contained in the Acid Rain portion of this Operating Permit.	CFR Parts 72 and 75	
CSA	PR Requirements		
1.	These units are subject to the applicable provisions of Cross-State Air Pollution Rule(CSAPR) to include all applicable provisions of the SO_2 Group 2 Trading Program requirements.	Rules 335-3-506 through 335-3-536	
2.	These units are subject to the applicable provisions of Cross-State Air Pollution Rule(CSAPR) to include all applicable provisions of the NOx Annual Trading Program requirements.	Rules 335-3-806 through 335-3-870	

Summary Page for 61 hp Diesel-fired Emergency Portable Air Compressor

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
Compressor	61 hp Diesel-fired Emergency Portable Air Compressor	NOx	N/A	N/A
		SO ₂	N/A	N/A
		СО	N/A	N/A
		PM	N/A	N/A
		VOC	N/A	N/A

Provisos for 61 hp Diesel-fired Emergency Portable Air Compressor

Fede	rally Enforceable Provisos	Regulations	
Appli	<u>cability</u>		
1.	This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits."	Rule 335-3-1603	
2.	This source is subject to the provisions of ADEM Admin. Code r. 335-3-1002(87), 40 CFR 60 Subpart IIII "Standards of Performance for Stationary Compression Ignition Engines."	Rule 335-3-1002(87) 40 CFR Part 60 Subpart IIII	
3.	This source is subject to the provisions of ADEM Admin. Code r. 335-3-1106(103), 40 CFR 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines."	Rule 335-3-1002(87) 40 CFR Part 63 Subpart ZZZZ	
<u>Emis</u>	sion Standards		
1.	This unit must be certified for emission standards according to 40 CFR Part 89.112 and 40 CFR 89.113 for new non-road compression ignition engines for the same model year and maximum engine power for all pollutants.	Rule 335-3-1002(87) 40 CFR Part 60 Subpart IIII	
2.	This unit must be installed and configured according to the manufacturer's specifications.	Rule 335-3-1002(87) 40 CFR Part 60 Subpart IIII	
3.	The owner or operator of this unit must install a non-resettable hour meter prior to startup of the engine.	Rule 335-3-1002(87) 40 CFR Part 60 Subpart IIII	
4.	This unit shall use diesel fuel that meets the requirements of 40 CFR 80.510(b).	Rule 335-3-1002(87) 40 CFR Part 60 Subpart IIII	
5.	This unit shall be operated and maintained according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.	Rule 335-3-1002(87) 40 CFR Part 60 Subpart IIII	
Comp	pliance and Performance Test Methods and Procedures		
1. Compliance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039 Subpart F.		Rule 335-3-1002(87) 40 CFR Part 60 Subpart IIII	

Fede	erally Enforceable Provisos	Regulations
Emis	ssion Monitoring	
1.	There are no source specific emissions monitoring provisions for this unit.	N/A
Reco	rdkeeping and Reporting Requirements	
1.	Records of monthly and rolling 12-month total hours of operation for the compressor shall be kept on site in a form suitable for inspection for a period of at least five years from the date of generation, and shall be made available immediately upon request.	Rule 335-3-1401

Phase II Acid Rain Permit

Issued by: Alabama Department of Environmental Management

Issued to: Calhoun Energy Center

Operated by: Calhoun Power Company 1, LLC

ORIS Code: 55409

Effective: May 9, 2016 through May 8, 2021

Acid Rain Permit Contents

1) Statement of Basis

- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process and any additional requirements or conditions.
- 4) The Phase II Permit Application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Permit Application.
- 5) Summary of Previous Actions and Current Action.

1) Statement of Basis:

Statutory and Regulatory Authorities: In accordance with the Code of Alabama 1975, §§ 22-22A-4, 22-22A-6, 22-22A-8, 22-28-14, and Titles IV and V of the Clean Air Act, the Alabama Department of Environmental Management issues this permit pursuant to ADEM Admin. Codes 335-3-16 and 335-3-18.

2) SO₂ Allowance Allocations and NO_x Requirements for each affected unit:

		2016	2017	2018	2019	2020
CT1	SO ₂ allowances, under 40 CFR part 73 [tons]	01	01	01	01	01
	NO _x limit [lb/MMBtu]	¤NA ²	¤NA ²	¤NA²	¤NA²	¤NA²
		2016	2017	2018	2019	2020
СТ2	SO ₂ allowances, under 40 CFR part 73 [tons]	01	O ¹	O ¹	O ¹	01
	NO _x limit [lb/MMBtu]	¤NA²	¤NA²	¤NA²	¤NA²	¤NA²
			2017	2018	2019	2020
СТЗ	SO ₂ allowances, under 40 CFR part 73 [tons]	O ¹	O ¹	O ¹	O ¹	01
	NO _x limit [lb/MMBtu]	¤NA²	¤NA²	¤NA²	¤NA²	□NA ²

		2016	2017	2018	2019	2020
CT4	SO ₂ allowances, under 40 CFR part 73 [tons]	01	01	01	01	01
	NO _x limit [lb/MMBtu]	¤NA²	¤NA²	¤ NA ²	¤ NA ²	¤ NA ²

- 1. Currently there are no SO₂ allowances allocated to these units by the U.S. EPA. The number of allowances allocated to Phase II affected units by U.S. EPA may change under 40 CFR Part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to SO₂ allowance allocations identified in this permit [See 40 CFR 72.84].
- 2. 40 CFR Part 76 does not establish a NO_x emission rate for Simple Cycle Combustion Turbine Units CT1, CT2, CT3 and CT4.
- **3) Comments, Notes, and Justifications:** This facility consists of four simple cycle 170 MW Natural Gas/Distillate Oil Fired Combustion Turbines.

It should be noted that the compliance certification report shall cover each calendar year in which year the unit is subject to an Acid Rain limitation.

4) Phase II Permit Application: Attached.

Summary of Previous Actions and Current Action:

	Action	Date
1.	Draft permit prepared and submitted for public review and comment.	November 8, 2001
2.	Permit finalized and issued.	December 12, 2001
3.	Draft permit prepared and submitted for public review and comment.	March 26, 2008
4.	Permit finalized and re-issued.	May 1, 2008
5.	Draft permit prepared and submitted for public review and comment.	March 22, 2011
6.	Permit finalized and re-issued.	May 9, 2011
7.	Draft permit prepared and submitted for public review and comment.	DRAFT
8.	Permit finalized and re-issued.	DRAFT
	Danald W. Come Chief	
	Ronald W. Gore, Chief Dat Air Division	ce

This submission is: \square New



STEP 1

Acid Rain Permit Application

Revised

of for ARP permit renewal

Yes

For more information, see instructions and 40 CFR 72.30 and 72.31.

, LE I				
dentify the facility name, State, and plant (ORIS)	Calhoun Power Company, LLC Facility (Source) Name	AL State	55409 Plant Code	
ode.				
TEP 2	a		b	
inter the unit ID# or every affected nit at the affected	Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)		
source in column "a."	CT1	Yes		
	CT2	Yes		
	CT3	Yes		
	CT4	Yes		
			Yes	

Calhoun Power Company, LLC Facility (Source) Name (from STEP 1)

Permit Requirements

STEP 3

Read the standard requirements.

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

(ii) Have an Acid Rain Permit.

Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.

(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Calhoun Power Company, LLC
Facility (Source) Name (from STEP 1)

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to

the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program

does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

(2) The owners and operators of an affected source that has excess

emissions in any calendar year shall:

(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and

(ii) Comply with the terms of an approved offset plan, as required by 40

CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission

Calhoun Power Company, LLC
Facility (Source) Name (from STEP 1)

Page 4

of a new certificate of representation changing the designated representative;

STEP 3, Cont'd. Recordkeeping and Reporting Requirements, Cont'd.

(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C.

1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each affected source and each affected unit shall meet the requirements

of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with

Page 5

Calhoun Power Company, LLC
Facility (Source) Name (from STEP 1)

any other provision of the Act, including the provisions of title I of the Act relating

STEP 3, Cont'd.

Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans:

(2) Limiting the number of allowances a source can hold; provided, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law:

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4 Read the certification statement, sign, and date.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

ame Michael S Connelly	T , ,
ignature Will S Connelly	Date 2 25 2014